Langley Research Center

Research and Development Classification Process (RDCP) Panel Training

June 2002

Why Peer Review?

- **Alignment of covered employees into peer groups with similar areas of expertise**
- **Consensus decisions of peers on application of grade level criteria reduced to written report which yields feedback to the researcher and supervisor**

Coverage

- **Majority of R&T non-supervisory research and development positions covered by RDCP evaluated under RGEG**
- **Several panels utilize various parts of EDGEG**
- **Evaluation criteria in RGEG and EDGEG Part III virtually identical**
- **Each panel reviews employees from one peer group**
- **Panels delegated authority to determine coverage under identified guide and appropriate grade level**

Peer Groups

Advanced Instrumentation and Sensor Systems (SEC) {RGEG and EDGEG}

Aerodynamics and Acoustics (AAAC) {RGEG}

Aerospace Systems Analysis (ASCAC) {RGEG and EDGEG}

Aerothermodynamics and Hypersonic Air-breathing Propulsion (AAAC) {RGEG}

Atmospheric/Space Science (AtSC) {RGEG}

Computational Methods (ASCAC) {RGEG}

Computer Science/Engineering (SEC) {EDGEG}

Dynamics and Control (ASC) {RGEG}

Crew Systems, Aviation Ops, Mission Critical (ASC) {RGEG}

Research Systems (SEC) {EDGEG}

Structural Mechanics and Advanced Materials (SMC) {RGEG}

Lead Competency Directors identified in parentheses

Guide(s) used identified in brackets

Blue indicates panel convening in Session 4

OHR Reps – Session 4

Acoustics and Aerodynamics – Lisa Allen

Aerospace Systems Analysis – Karen Thomas-Richards

Advanced Instrumentation and Sensor Systems - Karen Thomas-Richards

Atmospheric/Space Science – Lisa Allen

Computer Science/Engineering - Howard Staik

Research Systems –Howard Staik

Structural Mechanics and Advanced Materials –Simone Foretich

Phone Numbers:

Simone Foretich – 42565 ***Lisa Allen – 42571***

Howard Staik – 49307 ***Karen Thomas-Richards - 41550***

Branch Head: Lynda Holder – 44067

Confidentiality

- **Began in Qtr 2 - Names of panel Chairs and members are not being disclosed**
- **Contents of In-depth Reviews and panel deliberations are confidential - advise contacts that process is confidential**
- **Panel report is the official document which records the final determination of the panel**
- **Copies of cases, notes, worksheets, and other pre-decisional materials will be collected at the end of the meeting and destroyed by end of the next session. Panel members must delete any electronic files.**
- **May discuss general views about panel processes and case write-ups**

Liability and Panel Service

- Employee right to request review of panel decisions built in RDCP
- Informal right within Center - decision issued within 60 days
- Formal right of appeal to NASA HQ and OPM
- Classification appeals -
  - Non-adversarial - no hearings, witnesses, etc.
  - Usually involve review of written package
  - Panel report is the official record of the panel's determination

Liability and Panel Service II

- EEO complaint could be filed
- At administrative level, panel members could be asked to give statements/testify in hearings
- Such actions can result in litigation
- Panel service is an official assignment - acting within scope of employment
- If named as an individual, generally insulated from litigation - Department of Justice will represent employee and move for individual to be dismissed from the lawsuit
- Potential liability is limited

RDCP and Job Classification

- **RDCP is a system designed to ensure that all employees in covered positions have accurately described and properly classified p.d.'s**
- **Job classification focuses on application of a guide or standard to the regular and recurring work of a position**
- **Classification does not consider personality and relationships except where there is a demonstrated impact on the level of achievement**
- **Ability to communicate effectively in writing is an appropriate consideration in judging against the guide**

Preparation for the Panel Meeting

Panel Chairs

- **Panel Chair is responsible to ensure that panel taskings are met**
- **Chair assigns In-depth Reviewers**
- **Chair leads the group to consensus in meeting**
- **Procedural questions may be addressed to Chair, OHR representative on the panel, or RDCP Manager**

Preliminary Work

- **Panel members download case write-ups from TBD website**
- **Chair, panel members, and OHR representative read and scores all packages assigned to the panel prior to the meeting**
- **Score Sheet used by all except the IDR**
- **IDR completes more detailed review and drafts evaluation on Position Evaluation Report**
- **Contact with the employee to be reviewed is not appropriate**
- **IDR may request work products from employee's Branch Head**

Report Format

- **Score Sheet –**
  - **One page**
  - **Space for scoring all factors and tallying overall score**
  - **Space provided for comments**
- **Position Evaluation Report used only when serving as IDR**
  - **Fields can expand**
  - **Provides space for rationale for each factor score**
  - **Provides space for general comments**
- **Electronic versions are available on OHR website at http://ohr.larc.nasa.gov/RDCP.html**

In-Depth Reviewer

- **Is a fact-finder and investigator**
- **Is a confirmer of facts and their significance**
- **Must be unbiased . . . Neither advocate nor prosecutor**
- **Not necessarily a subject-matter expert in the specific area of research**
  - **Task is get the necessary information to answer the questions needed to apply the criteria in the guide**
- **In-Depth Review fleshes out the information in the case write-up**
  - **Panels are not empowered to rewrite packages**

In-Depth Review I

- **Role –**
  - **Clarify/obtain information about –**
    - » **Accomplishments**
    - » **Impact**
    - » **Stature**
    - » **Individual contributions in team research activity**
- **Significance**
  - **Panelist's thoroughness has a direct bearing on quality of panel decision**

In-Depth Review - Contacts

- **Employee provides minimum of six and maximum of ten names**
- **IDR has four mandatory contacts**
  - **Supervisor – identified in Item #4 of the Employee Accomplishment Record**
  - **Three individuals from employee's contact list (LF-515)**
    - » **Talk to at least one outstide LaRC person if listed**
- **May contact more names on employee's list**
- **May develop new leads**
- **Employee may link accomplishments to names on contact sheet**
- **Keep contacting until you have enough information to apply the criteria to the case write-up**

In-Depth Review - Plan of Action

- **Read case write-up**
- **Compare to EDGEG criteria**
- **Develop questions regarding issues that need to be fleshed out**
- **Select and e-mail references to set up time to talk - links to contact sheet**
- **Interview supervisor/references**

In-Depth Review - Plan of Action II

- **Prepare draft evaluation report (Bring original and seven copies to panel meeting – some panels may use in electronic format)**
- **Synthesize information to present to rest of panel**
- **No set format – refer to notes**
  - **Specify who was contacted**
  - **Share information they provided**
- **Summarize your evaluation**

In-Depth Review - Questions

- **Ask open questions that require narrative response**
- **Don't ask:**
  - **Leading questions - Don't you really think that this area has been fully exploited?**
  - **Questions with only yes/no answers - Do you believe that the level of supervision described is truly the way that this researcher operates?**
- **Do say:**
  - **How do you view . . .**
  - **Can you give me an example of . . .**
  - **What is your opinion on . . .**
- **Don't let them get away with not answering!**

In-Depth Review - Questions

- **Don't ask:**
  - **Should this person be promoted?**
  - **Is the researcher doing GS-__ work?**
  - **How does the researcher get along with co-workers?**
- **Don't say:**
  - **I don't have much time**
  - **I don't know much about this person's work**

Panel Meeting

Panel Meeting Agenda

- Two days set aside for meetings
- Chair identifies order in which cases to be discussed
- All members provide their scores on each factor and the summary
- IDR provides draft evaluation
  - Discusses results of contacts
  - Summarizes observations about write-up
  - Explains rationale for degree values initially assigned
- General discussion
  - Opportunity for members to adjust initial scores
  - Do not discuss current grade level

Panel Meeting Agenda (cont'd)

- If no consensus, Chair leads discussion to reach agreement
- Once consensus reached, final scores/grade level conversion/comments recorded
  - Difficult case could be tabled until the end of the meeting
  - Allows time for phone calls if needed to resolve unanswered questions
- Repeat for remaining cases

Panel Options and Reports

- **Classify at appropriate Grade - assign a grade level**
  - **Results fall into these categories:**
    - » **Above Current Grade**
    - » **At Current Grade**
    - » **Below Current Grade**
- **Report**
  - **Detailed evaluation to be returned to Branch Head/Employee**
  - **Includes factor scores and summary score with grade conversion plus specific narrative comments**
  - **Explain rationale behind assignment of scores**

Panel Options and Reports (cont'd)

- **Split Decision** – majority and minority evaluations referred to employee's Competency Director and OHR for final classification - include factor scores, summary score and grade conversion
  - Decision issued within 90 days
- **Guide Not Applicable** - case write-up returned to Branch Head
  - OHR assists Branch Head in resolving
  - New classification required within 90 days
- **Insufficient Information** – evaluation returned to Branch Head/Employee with recommendation that identified discrepancies/deficiencies be corrected and resubmitted
  - Must be rewritten and resubmitted to next available panel

Panel Report I

- Derived from initial work of In-Depth Reviewer who has prepared Position Evaluation Report
- Report form cues important considerations in each factor and provides space for scores/comments – also refer to questions in Appendix D of RDCP Handbook (rev. 1/29/02)
- Final scores and narrative comments recorded at the meeting
- Report edited and agreed to by the panel during the meeting
- OHR representative and Chair finalizes evaluation report
- Report returned to Branch Head to discuss with employee

Decisions on Case Write-ups

- **Consensus Decision Process**
  - **Seek consensus decision (unanimity) through panel dialog**
  - **Full agreement on grade, factor ratings, and comments**
- **Must reach a decision on every case**

Good Panel Reports

- **Explain the rationale of how degree assigned for each factor**
- **Any information provided by the IDR/panel that was critical in determining a level assignment that is not covered in the case write-up is explained in the report**
- **Employee and branch head can understand how panel viewed the write-up**

Potential Problem Areas in Case Write-ups

- Disconnects between factors – example, assignment seems very high level but supervision seems to be very detailed and involved
- Information provided in contacts is drastically different than information in case write-up
- Team activities are not clearly delineated and separated from individual achievements related to the team

Important Considerations

- **Not every package will identify accomplishments, work products, honors, etc. in the same way**
- **Employees instructed to follow general format for both position description and Employee Accomplishment Record**
- **Information is to be credited wherever it appears**
- **Feedback to the employee and supervisor on case write-up is key to effective operation of RDCP - put yourself in that researcher's position**

Panel Feedback

- **Feedback about the process will be requested by me from you.**
- **Feedback about your performance will be requested by me from your fellow panel members and Chair.**
  - **Competency Directors are interested in awarding good panel member performance and having negative consequences for bad panel member performance.**

Session 4 Schedule

- **Notice to employees by May 16**
- **Panel Chair names to Kelli by May 23**
- **Panels named by May 31**
- **Packages due in OHR at 4:00 pm June 28**
- **Packages distributed to Chairs and panel members July 8**
- **Panel member/IDR/OHR prep time - July 9 through August 4**
- **Panel Meetings - August 5-27**
- **Results available August 27**
- **Panel reports due to OHR COB Aug 28**
- **Reports distributed by September 6**
- **Actions processed based on time-in-grade order next pay period or placed in queue if controls limit actions (September 8)**

Applying the Guide

Case Write-Up I

- **Format**
  - **Combined 10 page limit for Position Description and items 1-7 of Researcher Record; remaining items (8-10) have no page limit**
  - **No specific penalty at this point for exceeding. If excessive, document in report**
- **P.D. and Record**
  - **P. D. covers current assignment**
  - **Employee Accomplishment Record links the individual to the job - covers current and past accomplishments**
  - **Most of Factors I through III in position description**
  - **Most of Factor IV rating derived from Record**

Definition of LaRC Research

- Research and development, as conducted at NASA Langley Research Center, includes high payoff activities beyond the risk limit or capability of commercial enterprises, which delivers validated technology and scientific knowledge.
- At one end of a continuum, it is very basic research, progressing through applied research, while at the other end, it is development and validation of new technology including demonstration and evaluation.
- Many of the positions at NASA Langley require progressing and iterating through many of the stages along this continuum depending upon the maturity level and goals of the assigned project.
- Application of the two Guides, RGEG and EDGEG, should use this broader definition of “research.”

Equipment Development Grade Evaluation Guide

- "Development"
  - advances state-of-the art and is the systematic application of scientific or engineering knowledge to create new or improved equipment, systems, materials, processes, techniques or procedures for a useful function
- Approach
  - Looks at Development Engineering in five major phases:
  - Phase I – Planning and Requirements
  - Phase II – Conceptual
  - Phase III – Definition
  - Phase IV – Prototype Design
  - Phase V – Test and Evaluation

Research Grade Evaluation Guide

- Covers positions of performing professionally responsible research or leadership of and participation in research team
- Fits these criteria
  - characterized by systematic investigation of aerospace engineering and atmospheric phenomena using experimental,simulations, or theoretical, and/or computational techniques.
  - characterized by application of scientific methods including problem exploration and definition, planning of the approach and sequence of steps, execution of experiments or studies, interpretation of findings, and documentation or reporting of findings.
- Products typically associated with this kind of work include
  - Development of theories, principles, concepts, techniques, approaches, and processes
  - Results in papers, presentations, patents, inventions, etc

EDGEG Position Descriptions

- Covers
  - positions engaged in planning, formulating, defining, monitoring, managing and evaluating governmental and contractor work for new or improved systems or equipment
- Equipment Development Guide contains three parts
  - Part I – Product Development
  - Part II – Project Management
  - Part III – Experimental Development
- Formats in each section are different
- Use the Part that covers the greatest majority of work performed in the position

EDGEG Part I – Product Development

- Product Development –
  - Covers the work required during the planning, conceptual and definition phases of the development process
  - Also covers providing technical direction to contractors, evaluating contractor work, guiding in-house development work, and serving as consultant or advisor on research and development programs
    - » Includes studies and analysis in depth on selected areas
    - » Systems integration of others work
- Format
  - Factor I – Assignment characteristics
  - Factor II – Level of Responsibility

EDGEG Part I – Factors

- Factor I – Assignment characteristics
  - Scope and complexity of assignment
  - Applicability of precedents and/or problems in converting principles and theories into engineering technology
  - Judgment and knowledge required to solve problems and select among alternative courses of action
  - End results expected
- Factor II – Level of Responsibility
  - Degree of control over work and freedom in:
    - » Determining what development work to pursue
    - » Organizing the work and selecting approach
    - » Determining how assignment will be accomplished
    - » Committing the organization to a course of action

EDGEG, Part 1 General Duties

- Factor I – Assignment characteristics
- GS-13
  - Serves as technical specialist in application of advanced theories, concepts, principles, and processes for an assigned area.
    - » Establish requirements and translate into principles to specify development programs
  - Plan, organize, direct, evaluate, and coordinate others
  - Conduct studies and analyses to determine feasibility of approaches, define concepts and criteria
  - Problems are of controversial or novel nature that have basic guides available.

EDGEG, Part 1 General Duties

- Factor I – Assignment characteristics
- GS-14
  - Serve as expert advisors and provide leadership for broad and complex programs that advance the state-of-the art.
    - » Assess effectiveness of concepts and ideas to achieve goals
    - » Establish promising approaches to achieve advancements
    - » Establish baseline design concepts and criteria
    - » Resolve technical difficulties by changes in approach, etc
    - » Coordinate technical specialists within and outside agency

EDGEG, Part 1 General Duties

- Factor I – Assignment characteristics
- GS-15
  - Serve as authority or consultant in evolving field have extensive impact on agency research and development programs/projects
  - Provide overall leadership and direction to pioneering development efforts in achieving new systems (previously unattainable)
  - Major impact on development process, agency research efforts and future operations
    - » Formulate and define overall mission and program/project objectives and requirements
    - » Identify most promising approaches for unprecedented programs
    - » Issue directives to resolve unforeseen difficulties
    - » Provide authoritative advice within and outside agency
    - » Integrate other experts within and outside agency

EDGEG, Part 1 General Duties

- Factor II – Level of Responsibility
- GS-13
  - Assignments have general objectives with broad policy and planning from higher levels
  - Technical problems resolved without reference to supervisors
  - Recommendations accepted as specialist and largely unreviewed.
  - Represent organization at conferences, high level meetings, technical committees.
  - Negotiate compromises in basic design requirements and characateristics

EDGEG, Part 1 General Duties

- Factor II – Level of Responsibility
- GS-14
  - Assignments convert overall objectives into development programs/projects and policies for others to use
  - Supervision limited to stopping and starting of programs/projects
  - Recommendations evaluated in terms of non-technical factors -
    - » Staffing, schedule, compatibility with other goals
    - » Broad program implications noted to supervisor
  - Adjust broad development activities of others, seen as final
  - Represent organization at high level meetings, technical committees.
    - » Negotiate solutions to critical issues
    - » Serve as symposia or session chairs
    - » Consulted by senior technical specialists in other organizations

EDGEG, Part 1 General Duties

- Factor II – Level of Responsibility
- GS-15
  - Free to plan and execute assignments within agency policy, mission objectives, and funds
  - Recognized as final technical authorities in their area
  - Provide authoritative advice to highest levels in establishing mission objectives, overall program/project goals, and managing development projects
    - » Evaluate effect of significant technological change on fundamental policies, objectives, and goals
  - Represent agency on committees and meetings as recognized authority

EDGEG Part 1 Scoring

- Appropriate grade level is determined for each of the two Factors
  - Assessment based on comparison of PD/EAR with written descriptions characteristics provided in the EDGEG, Part 1
- Highest grade level over both factors determines overall grade level
  - For example, GS-13 on Factor 1 and GS-14 on Factor 2 means a GS-14 grade level overall for that position

EDGEG Part II – Project Management Engineering

- Covered positions report to a Project Manager
  - Managing development of equipment or systems for such projects for a Project Manager
  - Covers those who manage the combined efforts of contractors and Government agencies in support of development of equipment for a project
  - Includes duties such as preparing cost estimates, preparing schedules, participating in design reviews, and reviewing and assessing work efforts of contractors.
- Qualifications
  - Professional competence in engineering field
  - Understands
    - » Engineering and scientific principles and theories
    - » Methods, practices, and techniques of development design
    - » Criteria and characteristics underlying use and purpose of engineered items
- Format - Four Factors
  - 1. Scope of the Assignment, 2. Technical Complexity of the Assignment, 3. Responsibility and Authority, 4.Technical and Managerial Demands

EDGEG Part II – Factors

- Factor I – Scope of the Assignment
  - Level of difficulty and responsibility
    - » Defining technical requirements and characteristics
    - » Planning and coordinating facets of assignment to achieve product within budget
- Factor II – Technical Complexity of the Assignment
  - Degree of complexity introduced by the technical environment and requirements of the products which affects judgment and knowledge needed to:
    - » Formulate approaches
    - » Guide, direct, and evaluate work of others
    - » Solve problems
    - » Select among alternative courses of action
    - » Achieve compromises
    - » Control schedules and costs

EDGEG Part II – Factors (continued)

- Factor III – Responsibility and Authority
  - Degree of freedom and extent of accountability engineer has
  - Considering
    - » Criticality of the assignment to the overall project or mission
    - » Interrelationships among assignments
    - » Sharing of responsibility with other participating organizations
    - » Authority and responsibility vested in review boards and panels
    - » Legal aspects and restrictions
    - » Reliance placed on the engineer due to professional stature
    - » Terms of contracts
    - » Layering of review and control in the Project Management Office

EDGEG Part II – Factors (cont'd)

- Factor IV – Technical and Managerial Demands
  - Degree of technical and managerial knowledge and abilities and leadership qualities required
  - Considers a number of elements that affect technical and managerial demands, including:
    - » Leadership to the agency, participating organizations, contractors and others in creating and proving feasibility of concepts, in defining requirements, and in directing
    - » Impact of the project on public, industry and Government and interest in accomplishment
    - » Conflicting pressures and requirements
    - » Participation with international and other governmental entities

EDGEG Part 2 Degrees

Degree Definition Examples

- A
  - Major subject matter or functional area for a particular purpose (e.g., propulsion and power system). Participation of several contractors and in-house groups
  - Modification or adaptation of existing engineering principles and guideline within the available technology.
  - Assess progress and maintains liaison between various activities and participants and report to higher authority as needed
  - Demands stem from difficulties typically encountered in coordinating range of functions and processes in achieving improved products
- B
  - Exceeds A, but does not meet C

EDGEG Part 2 Degrees

Degree Definition Examples

- C
  - Wide range of independent activities or areas.
  - Manage major elements for a specific function, or various development phases for several areas
  - Application of engineering and scientific principles for which no closely related precedents exist, within available or near available technology
  - Delegated responsibility and authority for day-to-day activities and decisions. Provides continuity of management throughout all development phases
  - Demands stem from unusual difficulties resulting in substantial element of uncertainty and risk. Direct leadership required to implement complex innovations and resolve critical difficulties
- D
  - Exceeds C, but does not meet E

EDGEG Part 2 Degrees

Degree Definition Examples

- E
  - Manage overall development effort (Chief engineer or subsystems engineer)
  - Previous applications confined to lab studies. Unproven feasibility. Pioneering effort or significant technological breakthroughs and advances sought. Wide application for future programs/projects.
  - Full reliance as recognized management authority in overall program/project definition, organization, direction and emphasis throughout development cycle.
  - Successful outcome jeopardized by variety of exceptionally difficult and complex factors. Requires creative leadership and outstanding managerial competence. Direct authoritative participation to establish feasibility of concepts and means to achieve advancements beyond state of the art.

EDGEG Part 2 Scoring

Factor	A	B	C	D	E
I	2	4	6	8	10
II	2	4	6	8	10
III	2	4	6	8	10
IV	2	4	6	8	10
Maximum points	8	16	24	32	40

Grade	Total Points
GS-12	8 - 12
GS-13	16 - 22
GS-14	26 - 32
GS-15	$\geq$ 36

Equipment Development Grade Evaluation Guide, Part 3

- Covers those who perform experimental and investigative activities to develop new and improved equipment or systems and to advance technology
- Fits these criteria
  - Thorough grounding in theories, principles and practices of physical and engineering sciences
  - Ability to use scientific techniques and methods to analyze, measure, and evaluate the phenomena, materials, equipment, and processes
- Products typically associated with this kind of work include
  - Papers describing application of theories, principles, etc.
  - Design concepts, criteria, and data
  - Laboratory and fabrication techniques and processes
  - Laboratory and prototype models, simulations, etc.
  - Patents and inventions

RGEG and EDGEG (3) Factor 1

Research situation or assignment

- Inherent DIFFICULTY and COMPLEXITY of the “research” problem determines the level assigned, not whether research is basic, applied, or prototype development
- A - Organization
  - Title, series
  - Branch and Competency
  - Mission/function of organization
- B - Personal research/development assignment -
  - Current assignment in general terms; project as an example of problem to be solved
  - Include field of research/development
  - Describe individual role…include personal assignment(s) if a team leader
  - Scope, complexity, objectives, means of accomplishment, expected end results, impact on theory or practice, validation processes

RGEG and EDGEG (3) Factor 1, continued

- C - Team leadership
  - If no lead responsibilities, state “The employee has no team leadership responsibilities”
  - If lead responsibilities
    - » describe project(s)
    - » nature, type, complexity, and impact of involvement
    - » problems being researched/product being developed, complexity
    - » numbers/types of team members
    - » technical leadership provided
    - » responsibilities to coordinate others’ work
    - » could include technical leadership for a particular aspect of project for the team
  - Based on personal competence in research rather than supervisory or administrative skill

RGEG and EDGEG (3) Factor 1, continued

- D - Related functions
  - Briefly summarize regularly assigned non-research/non-development duties involving 25 % or more of time
  - Technical assistance, teaching, special assignments
  - Amounts of 25% or less need not be described
- E - Administrative responsibilities
  - summarize if 25% or more of time
  - Amounts of 25% or less need not be described

RGEG and EDGEG (3) Factor 2
Supervision received

- Effect of controls on the position
  - Determining course of action
  - Degree of finality of recommendations and decisions
- A - Supervisory relationship
  - Identify supervisor and lead if applicable
  - Outline degree of independence the employee has to select problems to study, plan, execute, and report research/development
- B - Required approvals
  - Kinds of actions requiring approval from supervisor
  - Examples - changes in scope of research/assignment, funding or staffing project, etc.
- C - Delegated authority
  - Nature and extent of the employee's authority to speak or interface with others
  - Covers interaction with professionals and/or non-professionals

RGEG and EDGEG (3) Factor 3
Guidelines and originality

- Degree to which guidelines are available and/or useful, and innovations in concepts, methods, and interpretations
- A - Existing knowledge
  - Deals with degree of originality required
  - Guidance/literature available pertinent to research/development project
  - Nature and extent of employee's knowledge in the field and its usefulness as guidance
  - Gaps or inadequacies in existing literature or methodologies
- B - Originality required
  - Degree of judgment required in guide selection, interpretation, and adaptation
  - To make progress
  - Extend current theory or models
  - Intrinsic difficulty in applying guides

RGEG and EDGEG (3) Factor 3, continued

- C - Demonstrated originality
  - Deals with how research/development activity added to existing state of knowledge
  - Scope and impact of research/development results and products
  - Local, regional, national, international impact

RGEG and EDGEG (3) Factor 4

Qualifications and contributions

- Includes brief statement of general qualifications and accomplishments required for the position
  - Description of qualifications for hiring replacement
- Not tailored to specific individual - written in third person
- Factor IV is double weighted

RGEG and EDGEG Part 3 Degrees

Degree Definition Examples

- A
  - Limited scope, readily definable objectives, conventional means, apply existing theory, or adaptations of previous work. Single area of investigation. Fact finding and investigative rather than interpretative
  - Supervisor assigns problem with general instructions about scope and objectives, direction and guidance. Incumbent reports results and prepares report.
  - Required originality to develop complete and adequate research design using established techniques. Limited innovation or modification of procedures and techniques.
  - Performs independent research or member of research team. Demonstrated use of scientific method by performance or participation. Minor papers, source of information within his/her own lab.
- B
  - Exceeds A, but does not meet C

RGEG and EDGEG Part 3 Degrees

Degree Definition Examples

- C
  - Considerable scope and complexity: difficult to define, novel approaches, sophisticated technique, more than average difficulty. Series of studies. Important contribution to theory or methodology, changes to products, processes, or practices.
  - Supervisor assigns broad problem area, substantial freedom that area, identifies specific problems and approaches. Incumbent performs all steps of studies including reports. Supervisor follows incumbent's recommendations
  - High degree of originality required to conduct studies. Innovation or development of new procedures and techniques.
  - Leadership of team or of conception and formulation of research ideas, and/or productive personal research. Consultant for peer colleagues, many papers, source of information within or his/her own organization.
- D
  - Exceeds C, but does not meet E

RGEG and EDGEG Part 3 Degrees

Degree Definition Examples

- E
  - Broader scope and complexity: May subdivide into number of separate phases to address critical obstacles to progress or areas of exceptional interest. Exceptionally difficult, important problem areas. Major advances, opens way for more extensive development. Significant progress, not solutions, necessary.
  - Nominal technical supervision. Incumbent identifies and explores areas of research fruitful for agency or state of science. Complete responsibility for all steps of studies including interpretation applicability of results and evaluations to agency. Interpretations accepted as technically authoritative subject to further validation.
  - Very high degree of originality required for solution of problems of marked importance. Creative extension of existing theory or methodology, or technology or development of supplanting, new theory or methodology, or technology. Almost complete absence of applicable guides, literature, and methodology.
  - Outstanding stature in field. Defines state-of-art for others. Consultant for peer colleagues, many important papers, source of information within or outside the Government.

RGEG and EDGEG Part 3 Degrees

Degree Definition Examples

- Exceeds E
  - Broad scale scope and complexity: subdivide into number of separate research phases to address critical problems. Important new contribution to theory or methodology, major modifications to products, processes, or practices. Influence shaping of agency program goals, advancement of programs and understanding in total field, other researchers in government, academia, or industry.
  - Basically no technical supervision. Unusual level of support for incumbent's recommendations and novel investigations. Interpretations and recommendations provided to other agencies and the professional community without permission of higher authority.
  - Unusual degree of productivity, creativity, and insight to produce important new methods, concepts and discoveries. Findings have applicability to other fields of science and technology.
  - Top technical authority in his/her field. Nationally recognized authority and leader in area of widespread scientific/technical interest and investigation. Received awards from National organizations. Sought as advisor extending beyond his/her field. Personal competence likely a major consideration in agency sponsorship of programs in his/her field.

RGEG and EDGEG Scoring

RGEG Degree Points					
Factor	**A**	**B**	**C**	**D**	**E**
I	2	4	6	8	10
II	2	4	6	8	10
III	2	4	6	8	10
IV	4	8	12	16	20
maximum points	10	20	30	40	50

Grade	Total Points
GS-11	8-12
GS-12	16-22
GS-13	26-32
GS-14	36-42
GS-15	46-52

EDGEG Part III Degree Points					
Factor	**A**	**B**	**C**	**D**	**E**
I	1	2	3	4	5
II	1	2	3	4	5
III	1	2	3	4	5
IV	1	2	6	8	10
maximum points	5	10	15	20	25

Grade	Total Points
GS-11	8-11
GS-12	13-16
GS-13	18-21
GS-14	23-26
GS-15*	≥ 28

* Exceed E for Factor IV, or for two of the other three factors

Employee Accomplishment Record

- Details supporting the Factors 1,2, 3, and especially 4
- Total qualifications, professional standing and recognition, and contributions as impact current job
- If publications not appropriate, use other means to judge
- Recency of accomplishments important to show maintenance of competence
- Evidence that incumbent is keeping up with advancing and changing disciplines
- Educational degrees may be important, but not necessarily enough

Employee Accomplishment Record

1. Name
2. Education
3. Relevant Professional Training Received
4. Professional Experience:
   a. Present assignment
      Dates
      Brief description of duties and titles of projects
      Name of supervisor
   b. Previous professional positions (within last 10 or so years)
      Dates
      List research, engineering, other technical positions
      Provide brief description of work for each positions

Employee Accomplishment Record

5. Significant Scientific/Engineering/Technical Accomplishments:
   a. Do not duplicate information in item 4

   b. Describe each accomplishment, including results, in a separate paragraph
      - (1) state the accomplishment
      - (2) significance
      - (3) how it was communicated to users
      - (4) the extent to which being applied

Link to contacts on In-depth Review Contact Sheet

Employee Accomplishment Record

6. Scientific/Engineering/Technical Leadership:
    a. Employee's contribution in leading, planning, coordinating
    b. Document effectiveness before and after employee's leadership
7. Professional Scientific/Engineering/Technical Service:
    a. Current membership in professional societies
    b. Rendering scientific judgment
    c. Special assignments or other outreach activities
8. Inventions, Patents Held:
    a. Identify inventions disclosed/patents held
    b. Provide dates
9. Honors, Awards, Recognition, Elected Memberships
    a. List honors, awards and recognition received
    b. Provide date and name of organization for each

Employee Accomplishment Record

10. Work Product List: [Number consecutively]

a. Traditional Publications

Formal refereed publications (journal articles, NASA TPs)

Referenceable oral presentations

Others - NASA TM & CR and briefings not covered in b.

b. System Study Reports

(Reference program or HQ customer, title, contributors, date)

c. Hardware Products

Concept/Technology Development

Trade Studies

Designs

Component/Subsystem/Instrument Development

Integration, Test and Delivery

Employee Accomplishment Record

10. Work Product List continued

d. Software Products

Concept/Technology Development

Trade Studies

Designs

Code Implementation/Development

Integration, Test and Delivery

e. External agreements

Positive Technology Transfer

Memoranda of Understanding and Memoranda of Agreement

Borderline Cases

- Review assignment of points to factors
- Ensure that appropriate credit has been given
- If strength warrants a higher score in one factor, will reach floor of next higher grade
- Score in the “gap” is a legitimate score

Panel Result - ST Referral

- **ST – Pay plan for "Specially Qualified Scientific and Professional Personnel"**
- **Purpose of ST referral pool – highly qualified candidates to be considered for possible referral for future vacancies**
- **Current GS-15's may meet criteria for referral to ST pool**
- **Criteria**
  - **Total score of 52 points under RGEG**
    - **» At least Degree E on each factor**
  - **Degree E on both factors of EDGEG, Part I**
  - **Total score of at least 38 under EDGEG, Part II**
  - **Total score of at least 29 under EDGEG, Part III**